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QUALCOMM INCORPORATED
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EXAMINER	
WONG, LINDA	

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Response to Arguments

1. Regarding claims 1-3,9-12,14-16,18-37, Applicant's arguments filed 10/28/2009 have been fully considered but they are not persuasive.

   a. The applicant contends

> "In this case, *Ling* fails to teach each and every element recited in the claims. For example, *Ling* at least fails to teach "obtaining a plurality of received symbol streams for a plurality of data symbol streams sent via a plurality of spatial channels of a MIMO channel in the wireless MIMO communication system, wherein spatial processing is performed at a transmitter with steering vectors, which are estimates of transmitter steering vectors required to orthogonalize the plurality of spatial channels..."
>
> While *Ling* does teach receiving orthogonal pilot transmissions, there is no teaching that "steering vectors are used at the transmitter to achieve orthogonality" among pilot transmissions. In fact, *Ling* does not teach at all about steering vectors/matrices and the word "steering" is not mentioned in this reference at all."

The examiner respectfully disagrees.

Regarding the limitation "obtaining a plurality of received symbol streams for a plurality of data symbol streams sent via a plurality of spatial channels of a MIMO channel in the wireless MIMO communication system, wherein spatial processing is performed at a transmitter with steering vectors, which are estimates of transmitter steering vectors required to orthogonalize the plurality of spatial channels ...", Ling et al discloses in paragraph 8 a multiple input multiple output communication system. Paragraph 8 discloses each independent channel are spatial subchannel of the MIMO channel. Paragraph 10 discloses the channel state information is passed to the transmitter for spatial processing. Paragraph 82 discloses using channel estimates as filter taps in the spatial processor of the transmitter. Based on the definition of steering vectors found in the applicant's specification (page 5, paragraph 24), channel estimates or channel response matrix, H(k), incorporates steering vectors. Paragraphs 82, 93-96 of Ling et al discloses the use of channel estimates or channel coefficient matrix used for filter taps, wherein the channel coefficient matrix will contain the steering vectors.

2. Regarding claim 7, Applicant's arguments, see Applicant's Remarks, filed 10/28/2009, with respect to the rejection have been fully considered and are persuasive.

3. Based on the rebuttal of claim 1, the rejection of claim 1 and its dependent claims stand as stated. Please see the previous rejection.